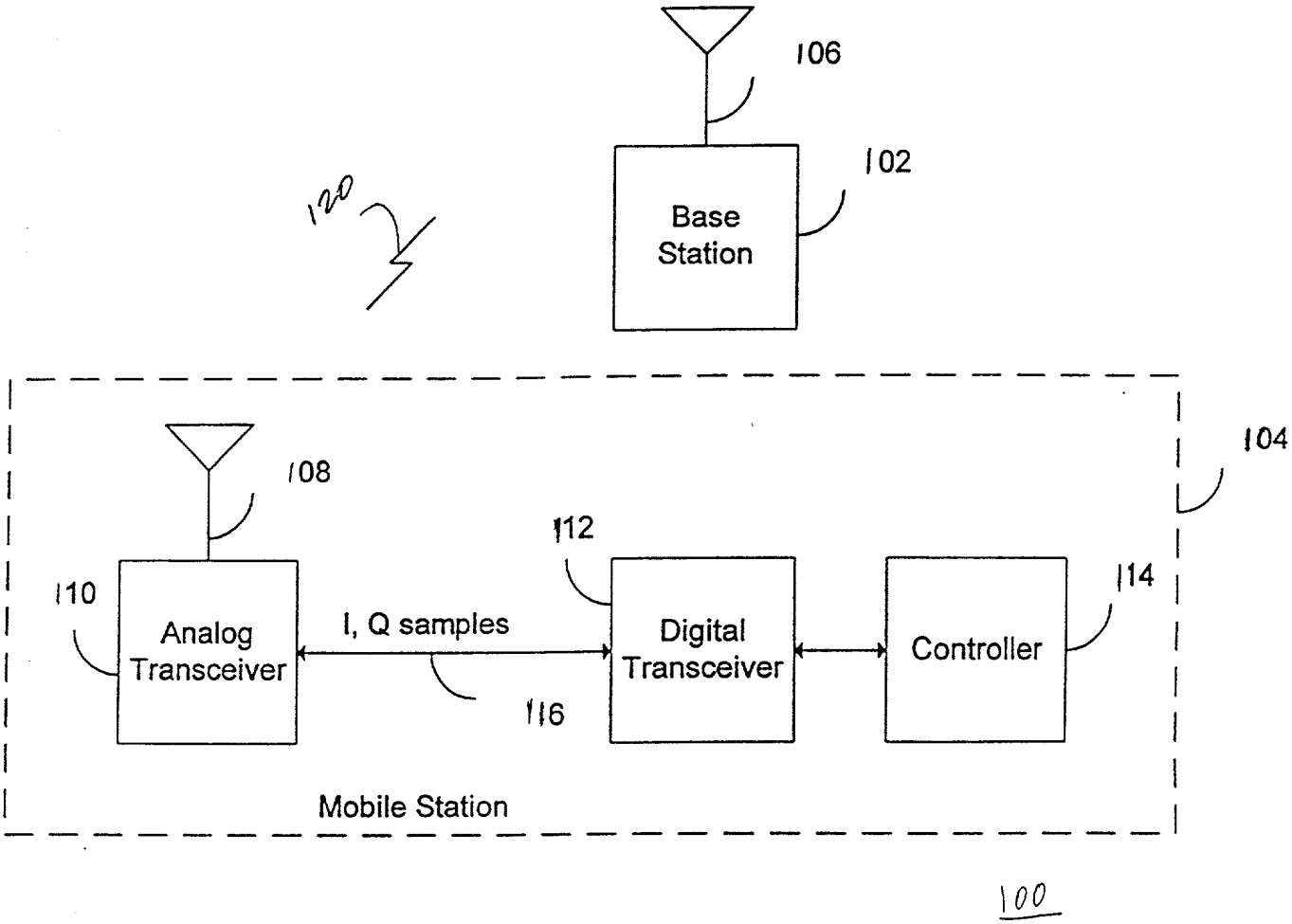
106
102
Base Station
120
104
108
112
110
Analog Transceiver
I, Q samples
Digital Transceiver
Controller
114
116
Mobile Station
100

FIG. 1

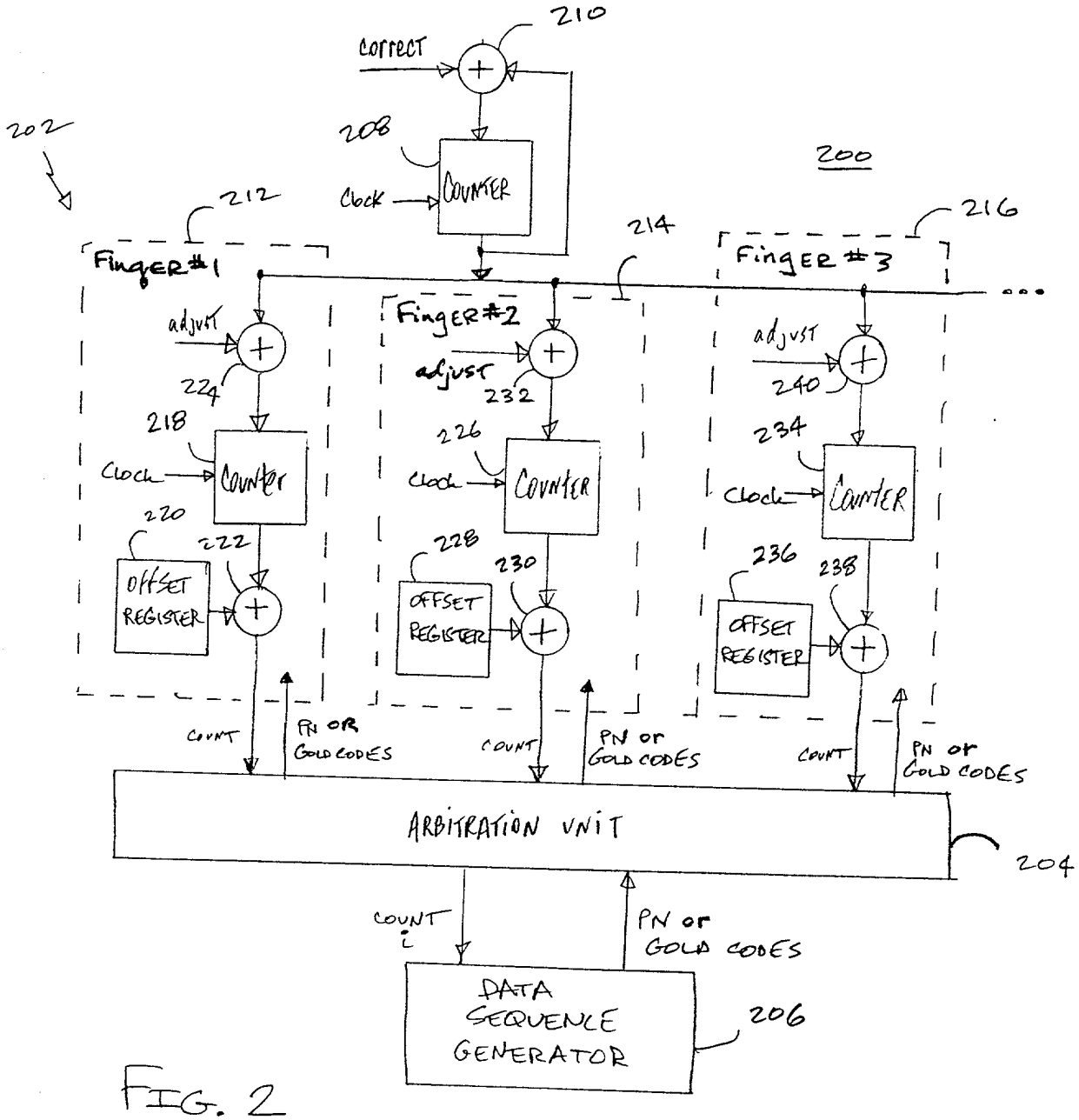
202
200
210
correct
208
Clock
Counter
212
Finger #1
214
216
Finger #3
Finger #2
adjust
224
232
240
218
226
234
Clock
Counter
220
222
228
230
236
238
Offset Register
count
PN or Gold codes
Arbitration unit
204
count i
PN or Gold codes
Data Sequence Generator
206

FIG. 2

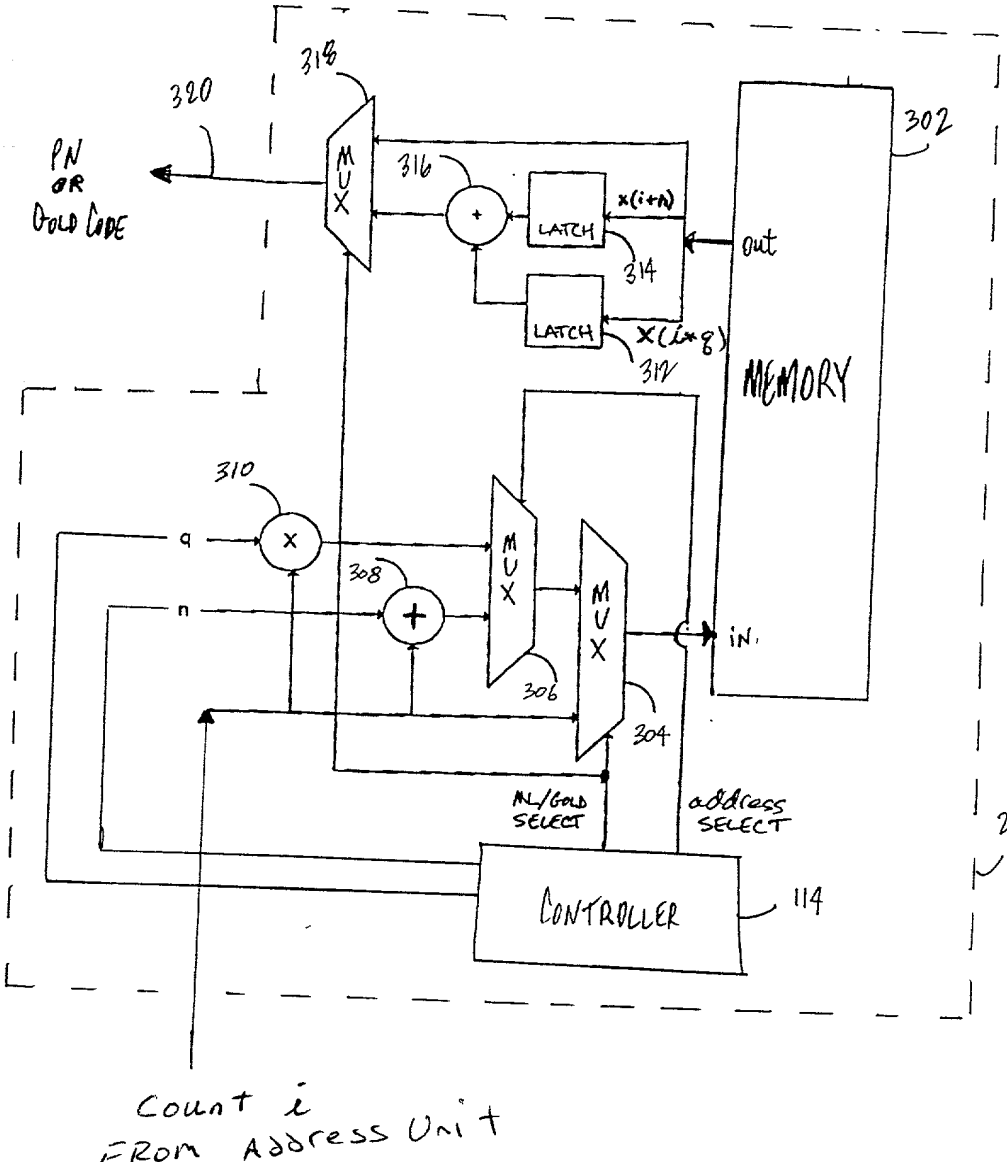
318
320
PN
OR
GOLD CODE
MUX
316
+
LATCH
x(i+N)
314
LATCH
X(i+8)
312
out
302
MEMORY
310
q
X
n
308
+
MUX
306
MUX
304
iN
ML/GOLD
SELECT
address
SELECT
206
CONTROLLER
114
Count i
FROM Address Unit

FIG. 3

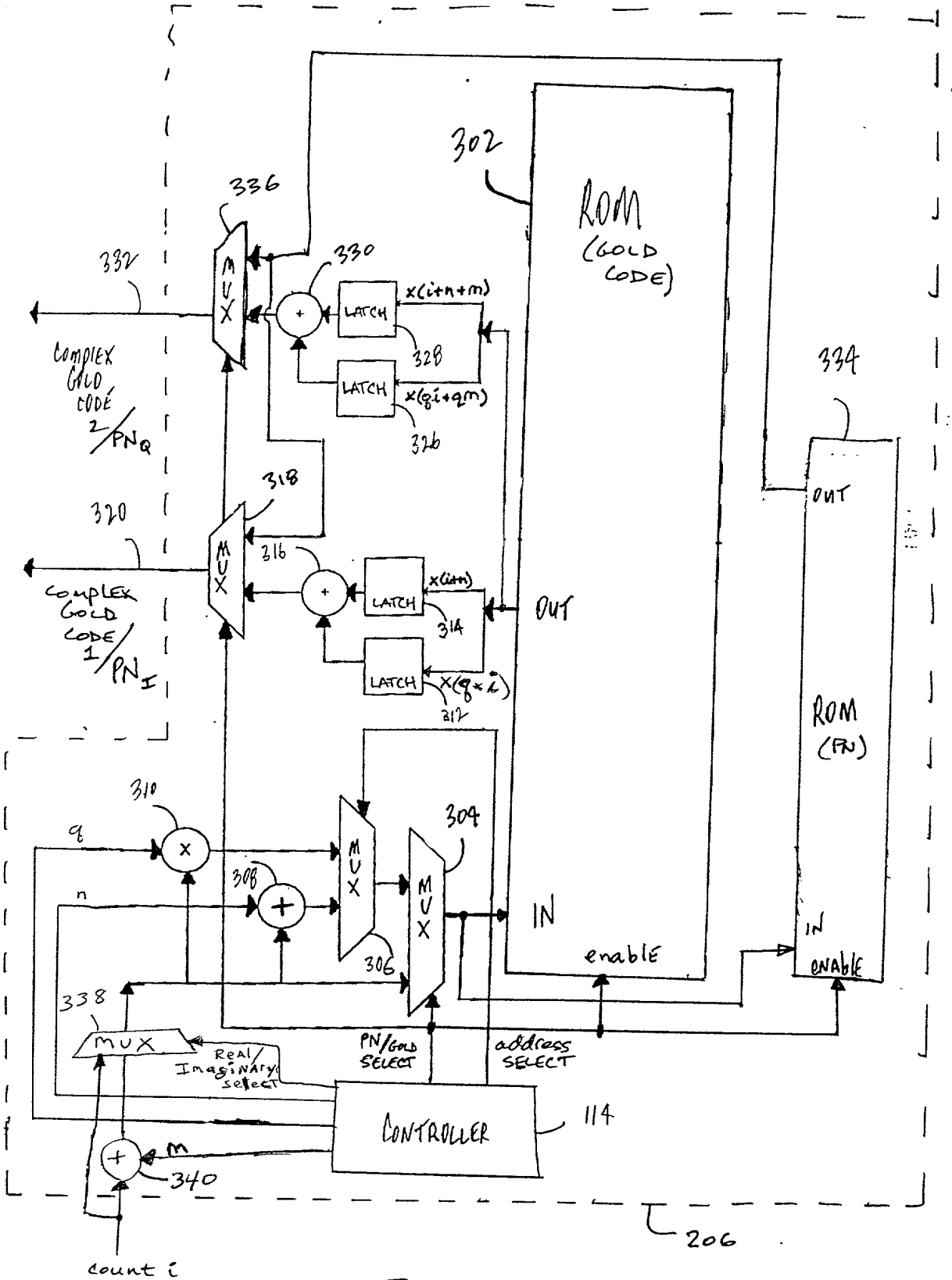
302
ROM
(GOLD CODE)
336
330
332
MUX
LATCH
x(i+n+m)
328
LATCH
x(q·i+q·m)
326
COMPLEX GOLD CODE 2 / PN_Q
334
OUT
318
320
316
LATCH
x(i+n)
314
OUT
COMPLEX GOLD CODE 1 / PN_I
LATCH
x(q·i)
312
ROM
(PN)
310
q
X
304
MUX
308
n
MUX
IN
306
enable
IN
ENABLE
338
MUX
Real/Imaginary select
PN/GOLD SELECT
address SELECT
CONTROLLER
114
m
340
206
count i FROM ADDRESS UNIT

FIG. 4

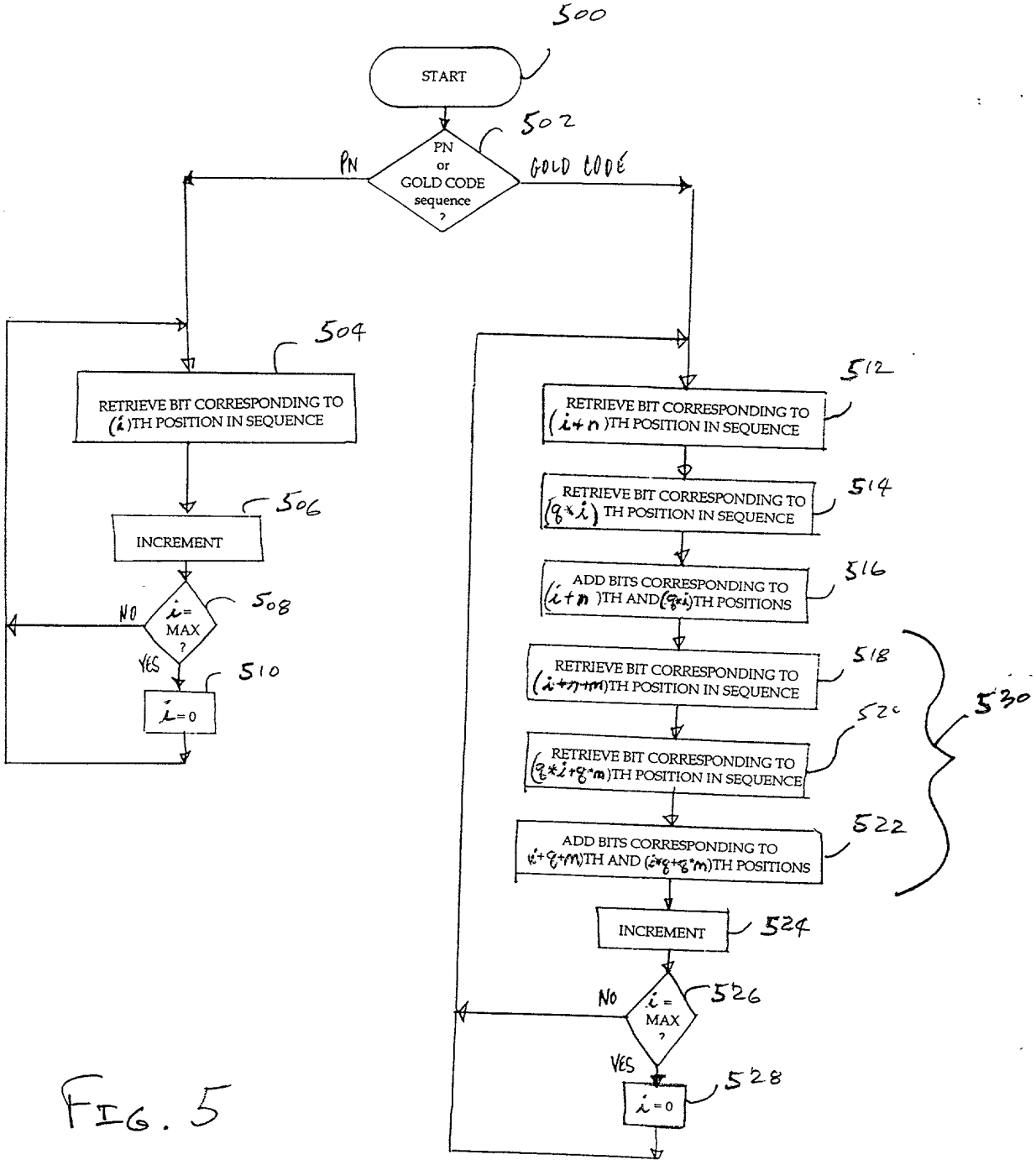
500
START
502
PN
or
GOLD CODE
sequence
?
PN
GOLD CODE
504
RETRIEVE BIT CORRESPONDING TO
(i)TH POSITION IN SEQUENCE
506
INCREMENT
508
i=
MAX
?
NO
YES
510
i=0
512
RETRIEVE BIT CORRESPONDING TO
(i+n)TH POSITION IN SEQUENCE
514
RETRIEVE BIT CORRESPONDING TO
(q*i) TH POSITION IN SEQUENCE
516
ADD BITS CORRESPONDING TO
(i+n)TH AND (q*i)TH POSITIONS
518
RETRIEVE BIT CORRESPONDING TO
(i+n+m)TH POSITION IN SEQUENCE
520
RETRIEVE BIT CORRESPONDING TO
(q*i+q*m)TH POSITION IN SEQUENCE
522
ADD BITS CORRESPONDING TO
i+q+m)TH AND (i*q+q*m)TH POSITIONS
530
INCREMENT
524
i=
MAX
?
NO
526
YES
528
i=0

FIG. 5